

Amendments to the Claims

The listing of claims will replace all prior versions and listings of claims in the application:

5 Listing of Claims

10 Claim 1. (currently amended) An A cooling apparatus for an illumination system of an optical engine, the illumination system comprising a light source and a lamp base for the light source and having a side, the cooling apparatus comprising:
an illumination system comprising a light source and a lamp base for the light source, wherein the lamp base has a side;
15 an air duct body having a top side opening, a bottom side opening, and an interior side between the top side opening and the bottom side opening, wherein the bottom side opening is fixed attached on the side of the lamp base;
20 at least one partition ~~located~~ located in the interior side of the air duct body and separating the air duct body into a plurality of air ducts;
an external air duct ~~connecting~~ connected to one of the plural plurality of air ducts from at the bottom side opening of the air duct body and extends the air duct to outside of the air duct body, and
25 a fan attached on the top side opening of the air duct body.

30 Claim 2. (currently amended) The cooling apparatus for illumination system of optical engine as claimed in Claim 1, wherein the plurality of air ducts are comprise

a light source air duct, a lens air duct, and an auxiliary air duct, and each of the plurality of air ducts have has a different surface areas cross-section area.

5 Claim 3. (currently amended) The cooling apparatus for
~~illumination system of optical engine~~ as claimed in
Claim 2, wherein the lamp base has an exit, ~~connecting~~
connected to the an entrance of a lens framework, and
10 ~~forming an adjoining surface, and~~ wherein the lens
air duct spans across ~~the sides of the an~~ adjoining
surface between the lamp base and the lens framework.

Claim 4. (currently amended) The cooling apparatus for
~~illumination system of optical engine~~ as claimed in
15 Claim 2, wherein ~~the bottom of the auxiliary air duct~~
installed a bottom plate and with an air guiding hole
is attached on a bottom of the auxiliary air duct,
wherein the bottom plate ~~can guide the~~ guiding air
to the air guiding hole, and wherein the external air
20 duct ~~extends from underneath the air duct body to is~~
connected to the air guiding hole and further by the
side of extends form the air guiding hole to near the
exit of the lens framework.

25 Claim 5. (currently amended) The cooling apparatus for
~~illumination system of optical engine~~ as claimed in
Claim 2, wherein the light source air duct guides ~~the~~
~~most amount of the air to the light source inside the~~
lamp base.

30 Claim 6. (currently amended) The cooling apparatus for
~~illumination system of optical engine~~ as claimed in

Claim 1, wherein the fan is an axial fan.